

**REMARKS/ARGUMENTS**

Claims 27-45 were pending in this application. Applicant has amended claim 27, added claim 46, leaving claims 27-46 pending in the present application for the Examiner's consideration.

**35 USC §112 Rejections**

In the Office Action, the Examiner rejected claims 27-45 under 35 USC §112 as failing to comply with the written description requirement, and being indefinite for failing to particularly point out and distinctly claim the subject matter. Reconsideration in view of the following remarks is respectfully requested.

The Examiner asserted that the limitation "wherein the ratio of the number of possible output symbols to be output to the number of input symbols in the plurality of input symbols is greater than is needed for any expected *"signal to noise ratio"* in claim 27 is not supported by the original disclosure. Applicant respectfully traverses this assertion.

The signal to noise ratio of a communications medium represents a relation between a signal level and a noise level of in the medium and this ratio is a well-known concept in communications. The signal level varies for a multitude of factors, including power of the signal, distance from the signal, and the noise level depends on several factors, including noise in the background, the type of obstructions, etc. A low signal to noise ratio can result in lost or garbled data during transmission. Signal to noise ratio, or SNR, is a well-understood term of art to those in the field of communications. As explained in the specification, the chain reaction coding scheme generates an effectively unbounded set of output symbols for any given input file and the output symbols are information additive. Hence, for any expected signal to noise ratio, a receiver can lose output symbols in a random pattern and still recover the input file by simply receiving additional output symbols from the effectively unbounded set of output symbols. Thus, claim 27 contains subject matter described in the specification and complies with the written description requirement.

New Claim 46

The Applicant has added claim 46 for entry and examination. Applicant submits that claim 46 is supported in the specification as originally filed. For example, descriptions of using the chain reaction coding scheme to send a file over a lossy transmission medium, such as a computer network, the Internet, a mobile wireless network or a satellite network, are described, for example, at page 43, lines 13-18. Description of how the receiver is not constrained to pickup any particular set of packets, so it can lose some packets, miss the beginning or end of a transmission and still recover an input file because of the effectively unbounded set of output symbols is described, among other places, at page 15, lines 8-11. Thus, for any expected loss rate of a communications medium, the ratio of the number of possible output symbols (effectively unbounded) to the number of input symbols is greater than is needed to recover the input file.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

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Respectfully submitted,

  
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